Human Factors

research and technology division

Human-Centered Cockpit Information & Flight Path Management Concepts for Airborne Traffic Management

A system that provides a graphical user interface and display with :

- 4D flight plan and traffic information depictions with: static and dynamic predictors; 3 levels of relative altitude color coding - co-altitude, above, and below

- Situational awareness information: strategic conflict alerts; traffic relevance coding (i.e. temporal proximity, ìfree flightî status) using intensity levels and symbol shape

- Anti-clutter features: full and partial data blocks (Tail tags); individually controllable data blocks; smart tags; global ID and route declutter

- Flight plan modification tools controlling 4-D flight path, coupled with conflict detection logic to identify conflict-free routes

- Captain/First Officer display sharing

- Graphical FMS flight plan changes coordinated with ATC through FANS links

- Touchpad and panel-mounted controls

- Approach spacing & merging algorithms coupled to FMS

- Voice Input for information management and display functions

- 3D Display prototype

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